

ALTERNATIVES FOR WEED ABATEMENT PROGRAMS

Alternatives Funding and Operational Methods

Available for a Weed Abatement Program

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CERTIFICATION STATEMENT

I hereby certify that this paper constitutes my own product, that where the language of others is set forth, quotation marks so indicate, and that appropriate credit is given where I have used the language, ideas, expressions, or writings of another.

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Abstract

The Santa Rosa Fire Department's (SRFD) Weed Abatement Program was not financially viable resulting in the earmarking of the program for elimination. The elimination of the program would create a greater risk for catastrophic fires within Wildland Urban Interface (WUI) areas. This research developed alternative funding and operational options and recommendations for sustaining the Weed Abatement Program.

Through descriptive research, funding and operational options were identified, other private and public jurisdictions were surveyed, and options SRFD should consider were identified.

The research was accomplished through literature review and a survey. The results identified funding and operational options for continuing the program. Recommendations included the development of a user fee for community outreach, use of light-duty personnel, review of privatization and civilianization options and the aggressive pursuit of grant funding.

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Introduction

Program funding demands on governmental agencies are prevalent in the current economic environment. Budget reductions have challenged many organizations and resulted in a search for alternative funding sources and operational efficiencies to prevent loss of programs. Tannenwald (2004) discusses the obligation of government to search alternative funding sources to respond to the fiscal challenges to state and local revenue streams and that the conclusion that the future of government depends on success with alternate approaches.

California fire departments are losing significant ground in providing effective service with the reduction of programs. Fire Department's are experiencing the reality of losing important public safety programs as a result of inadequate funds available to sustain these programs. The program reductions have an important effect on the overall mission of the Fire Department. In the area of weed abatement, Fire Department's are experiencing the loss of staff and response resources associated with budget reductions. The result being fewer resources are available to respond to fires in the wildland.

Successful weed abatement programs reduce the available fire load and threats to property and life. The reduction of a weed abatement program, generally considered a support program, will pose greater risks for catastrophic fires and the loss of additional property and life. This at a time that resources are being eliminated as part of budget cut backs. Smalley (2008) discusses the increase in number of significant wildland fires over the past three years in California and the fact that trends are showing this may occur in future years due to climate changes.

The City of Santa Rosa Fire Department's Weed Abatement Program is not financially viable. The lack of an alternative funding mechanism will result in the program being eliminated. The unregulated growth of weeds on properties will create a greater risk for catastrophic fires within the City's Wildland Urban Interface (WUI) Areas.

This research will develop alternative funding and operational efficiencies to support a recommendation for the continued operation and funding of the Weed Abatement Program. Descriptive methodology will be utilized to answer the following questions: a) what laws and regulations govern a weed abatement program?, b) what models are available to fund and operate a weed abatement program?, c) what are the funding sources and operational practices utilized in other fire departments, and d) what alternative funding and operational options are available to Fire Department's?

Background and Significance

The City of Santa Rosa is located in Northern California approximately 50 miles north of San Francisco within the County of Sonoma. The City serves as the County hub and serves the County of Sonoma with federal, state and county facilities located within the city limits of Santa Rosa. Santa Rosa is located within a Wildland Urban Interface (WUI) area where 25% of the City's residents reside within state designated "Very High Fire Severity Zones" (VHFSZ.) The City has a significant earthquake fault, Rogers Creek, running through the City.

The City is a “Charter” city as allowed for by the constitution of the State of California. The City’s governing rules are located within the charter and can only be changed by a vote of the citizens of Santa Rosa. The City was incorporated in 1884 and the Santa Rosa Fire Department was established as required by the City’s charter. There are 83 charter cities in California out of a total of 468 cities.

The Santa Rosa Fire Department (SRFD) is a full-time all-risk fire department serving a population of 158,000 residents over an area of 43 square miles. The Fire Department’s budget for 2008 is \$32 million.

The SRFD employs 145 personnel. 11 personnel are non-sworn with the remaining 134 being sworn. The Fire Department’s structure is made up of three Bureau’s including; Administration, Operations and Prevention. The Administration Bureau consists of the fire chief, administrative services officer and one support person.

The Operations Bureau has 123 sworn personnel with one deputy chief, one division chief, three battalion chiefs and 36 captains. The Operations Bureau provides all-risk services including emergency medical services, fire suppression, hazardous materials, public education and technical rescue. The SRFD has ten stations with ten paramedic engine companies, two truck companies and a demand staffed technical rescue and hazardous materials response vehicle.

The Prevention Bureau has eighteen (18) employees and provides plan review and inspection services for new construction and existing occupancies, manages the Certified Unified Program Agency (CUPA) on behalf of the State of California providing hazardous materials permits to over 700 occupancies utilizing hazardous materials, provides community outreach for fire and risk safety to our citizens and manages the

vegetation management and weed abatement programs. The Fire Prevention Bureau's budget is \$2.5 million, less than 8% of the total SRFD budget.

The City is faced with severe funding problems with the downturn in the economy. It is estimated that the City has an \$8 million on-going structural imbalance. The total general fund budget for the city is \$120 million. This imbalance is required to be corrected by the City's charter. Over the past year the City has been looking at alternative funding sources and program efficiencies. The Fire Department is faced with the reduction of \$2 million within their budget. Initial proposals include the "brownout" of an engine company and alternative methods to eliminate a negative revenue model for funding the Weed Abatement program.

The Weed Abatement program is difficult to fund 100%. User fees are in place that charge property owners when they do not abate their properties weed and the hazard on their property. These funds recover approximately 50% of the program costs. Without a solution to fund 100% of the program costs the City will eliminate the program.

There are no obvious solutions to generate funds or find program efficiencies to fill the required budget gap. The City has a "Weed Abatement Ordinance" that requires property owners to abate the hazards on their property. Wildland fires are a significant concern to our City and the State of California. Urban Wildland Interface fires are a concern and have been highlighted in recent years through the news reports of the loss of life and property in these fires. In excess of 20% of our community resides within designated Very High Fire Severity Zones." (SRFD strategic plan, 2007, p.10).

The significance of this applied research project (ARP) relates to one of the operational objectives identified in the United States Fire Administration (USFA)

strategic plan; “reduce the loss of life from fire-related hazards” (USFA 2003). This ARP will research alternative funding and operational methods towards maintaining a self sustaining weed abatement program allowing the SRFD to continue to prevent catastrophic fires through hazard mitigation.

Literature Review

This literature review is to research the essential pieces of information required to identify funding and operation efficiencies relating to maintaining the City’s Weed Abatement program. The literature review identified data from several sources including public and private sectors. Research included gathering data from; a) Learning Resource Center (LRC), b) Santa Rosa Public Library, c) California Department of Forestry and Fire Protection, d) Firewise resources, e) private and public weed abatement program resources and f) the Santa Rosa Fire Department. The Internet was used to identify research pertinent to this subject matter.

Protecting California’s human and natural resources from the ravages of wildfire requires constant vigilance and a fire protection program that recognizes fire pre-suppression as no less important as fire suppression. Fire pre-suppression planning must be integrated with all other land use and management planning activities.”(Wilson 1994, p.1) It is not enough that State and Local Government continue to spend millions each year to combat wildfires. Each year homes and lives are lost. Funding must be provided for proactive programs in place to mitigate the threat of wildfire.

The California League of Cities (League) and California State Association of Counties (CSAC) formed a partnership with the federal government to cooperate,

collaborate, and communicate in the development of better land use policies and wildland fuel management programs. Loveridge, President of the League of Cities, noted that catastrophic wildfires are one of the most significant threats to communities in California. (Loveridge, R 2004, p.1) California leaders are realizing the importance of pre-planning and mitigation to prevent and limit the devastation of wildfires on communities. This devastation is much more than the personal loss of homes and personal property. The loss to the community's economy is equally devastated and can have a long term effect on the future of a community.

Bidwell, in his studies of wildland management, identified the fact that we as a community cannot change topography or weather conditions, both important factors in fire behavior, but we do have the ability to make a difference with the amount of fuel through fuels modification. Bidwell noted that fires are growing into more of a community problem and that the wildfire problem will not diminish quickly, nor will it ever disappear quickly. (Bidwell, H. 1999, p. 75) There have been many different wildland protection policies implemented over the years based on the Presidential party in office. There remain those that believe that there should be no mitigation of wildlands. The current Administration policy allows mitigations including the thinning of forests.

Powers noted that the Senate adopted the "Healthy Forests Act" in 2003 without much opposition. Ironically this legislation quickly followed the devastating San Diego, California fires in 2003. The wildfires destroyed thousands of homes and killed both residents and firefighters. The intent of the Act was to reduce the threat of such wildfires

in the future.” (Power, T, 2003) Power did not support or believe that wildlands should be mitigated. Power believes that fires are a natural occurrence and that thinning forests will have no effect. He used this article as a means of blaming the federal government for poor regulation of the watershed based on the public’s outcry of the significant fires in California.

An interesting point made by Keeley was that large portions of areas burned in the 2003 fires re-burned in 2007. His argument was that this illustrated that even small young and sparse fuels could not stop a wind-driven fire thus we cannot rely on fuel modification projects to stop catastrophic fires. Keeley did support the need to manage vegetation around structures for the purpose of protecting homeowners and firefighters. (Keeley, J. 2007) Keeley is a fire ecology expert and was testifying at a Senate hearing regarding the 2007 San Diego wildfires.

The Government Accounting Office points out, in a report on the economic challenges of significant fires, that the President and Congress, as well as the Forest Service and Interior agree on the importance of reducing fuels in the wildland-urban interface. Yet the report found that the agencies have not developed a specific definition of wildland-urban interface and therefore are unable to identify the amount and location of lands in the interface nationwide. (GAO 2003, p. 15) This report to congress reviewed the importance of prioritizing wildland urban interface areas and addressing mitigations to prevent catastrophic fires in the U.S.

The Insurance Services Office (ISO) maintains a database of insurance payments in the United States due to wildfires and other catastrophes. Kovacs noted that during

the 1970s and 1980s there were eight major wildfires which led to insurance payments of between \$5 and \$43 million for each event. After adjustment the losses were between \$10 and \$100 million (ISO, 1997). Kovacs referenced the four significant fires in California between 1990-1993. These fires resulted in insurance payments totaling \$265 million to \$1.7 billion for each event. (Kovacs, P. 2001) Wildfires are increasing and the economic costs are significant.

Wildland-Urban Interface Fires occur every year in California; in 2003 alone, the total number of structures destroyed or damaged was approximately 5,046. It has been determined that 74% of these losses were a result of the “California Fire Siege, 2003” as reported in, “The Story.” Those who lost their homes in past fires are applying for building permits today to build on the same property where their homes were destroyed. It is in the public’s interest that these new building standards become enforceable in these Wildland-Urban Interface Fire Areas as quickly as possible to help mitigate the devastation that California experienced in 2003. (California State Fire Marshal, 2005, p.2) As a result of significant wildfires in Wildland Urban Interface (WUI) areas, the State of California completed an emergency adoption of building codes related to mitigating hazards to homes located within WUI areas.

The California Department of Forestry and Fire Protection noted that the years of experience has finally resulted in a statutory strategy for reducing the chance of building loss or damage. The strategy involves: a) defensible space – reduce flammable material around homes to keep direct flames and heat away from the side of the building. (The law already requires property owners to create 100 feet of defensible space around buildings); b) exterior wildfire exposure protection - construct buildings so that they have less

chance of catching fire from burning embers. These mitigations relate directly to making changes to the surrounding property and to the buildings themselves. (California Department of Forestry and Fire Protection, 2007)

California has adopted regulations for fuels modification and specific building standards in State Responsibility Areas (SRA's) and Local Responsibility Areas (LRA's). State regulations and standards have been adopted to mitigate the effects of wildfire in these areas. The standard generally requires disrupting the vertical and/or horizontal continuity of flammable and combustible vegetation with the goal of reducing fire intensity, inhibiting fire in the crowns of trees, reducing the rate of fire spread, and providing a safer environment for firefighters to suppress wildfire. This performance standard allows a wide variety of methods to be used to obtain compliance with PRC 4291(b). (California Legislative Analyst, 2005, p.3) California increased the defensible space requirement from 30 feet around a home to 100 feet. This act was in response to the catastrophic fires in San Diego in 2003.

Under California law, SRA land is protected by the State California Department of Forestry and Fire Protection. LRA land is the responsibility of local City and County government. The State may respond resources into an LRA fire if there is a finding made that the fire poses a threat to SRA lands. The result is a specific threat to the economy in LRA's as the mitigation requirements, while still significant, do not measure up to the requirements found for SRA lands. The burden for additional regulations within LRA's is referred to those legislative bodies.

The City of Santa Rosa has in place a City ordinance that requires property owners to abate weeds on their property prior to May 1st and to maintain the weeds so

that they do not pose a hazard. Inspections are conducted by the Fire Department's sworn Fire Inspector's to evaluate compliance on lots where a previous complaint was identified. Property owners of lots that do not meet the requirements of the ordinance are charged for the personnel and resources required to notice and inspect the property. Those owners who fail to abate the hazard after a second notice are subject to property abatement by the City's private weed abatement contractor. Charges for physical abatement are assessed to the property if not paid within 60 days. (Santa Rosa Fire Department Weed Bulletin, 2005)

In San Diego, Imperial, Fresno, Riverside and Kern County, twenty-five fire department's have contracted with a private company, Fire Prevention Services, Inc., to manage their weed abatement programs. Complaints, inspections, billing and abatement of properties are managed by this private company. (Fire Prevention Services, 2008.) Privatization of weed abatement is a new area of privatization. Under this model, the jurisdiction can forward all complaints and issues to the private provider for resolution. In California, jurisdictions are limited to billing for the actual cost of service. Private vendor's are instead only limited by market competition.

Local governments have for the last two decades looked for opportunities to outsource or privatize services. Weed abatement is referenced by Johnson and Walzer as a service that may be outsourced. Not all attempts at outsourcing are successful. There are many factor's including government regulation, market costs, political influence and interest in continuity of programs. The benefits include smaller government, growth of jobs for the private sector, possible reduced costs and in some cases an ability to avoid government regulation such as prevailing wage regulations. (Johnson and Walzer, 2000)

Privatization has issues similar to restraints found by local governments. In San Marcos, located in San Diego County, California, the Grand Jury found that the City of San Marcos was required to competitively bid the contract for weed abatement services on a regular basis. This restriction is significant in that one of the success points of a weed abatement program is continuity from year to year. Experience on different properties, owners, payment history and in developing and maintaining relationships with neighborhoods and property owners is key. Changing the contractor every 3-5 years may result in the loss of institutional knowledge and there may be an increased cost for the learning curve required to obtain a new contractor and bring the company to an efficient level. (San Diego, California Grand Jury, 1998)

Ironically, the City of San Marcos, California chose to not follow the San Diego Grand Jury's recommendations based on their references to laws related to contracting with private industry. The City found that having an effective system outweighed the need to competitively bid the contract on a regular cycle. A significant recommendation by the Grand Jury was to not allow the City to impose liens on properties that failed to comply and provide those funds to the private contractor as reimbursement. The City chose to remain with this practice based on case law. (City of San Marcos, California 1999)

The Ventura County, California Fire Department's weed abatement model includes a charge for the educational component of the process. Parcel owners in violation receive a bill for the enforcement and the fire education component along with an administrative overhead charge. The Grand Jury reviewed the billing practice and found the practice of charging for the educational component valid. This is important as

many of the tasks to notice and educate the citizens of the jurisdiction are not routinely charged to the parcel owners in violation. It was also significant that the Grand Jury found that the program was effective and had prevented additional property damage from recent fires. (Ventura County, California, Grand Jury, 2003)

The Marin County, California, Grand Jury recently reviewed the County's enforcement of existing regulations and whether the regulations were adequate for the high fire hazard most of Marin County resides in. The Grand Jury found that while existing regulations are adequate for new homes being constructed that they were not adequate for existing homes. Recommendations included the need for additional regulation and enforcement of vegetation management and weed abatement requirements for existing homes. The Grand Jury recommended following a program utilized in San Rafael, California where residents were educated the first year, inspected the second year and enforcement occurred the third year of the program. (Marin County, California Grand Jury, 2007)

Procedures

This research project was completed to gather and analyze information to assist the City of Santa Rosa in sustaining the City's Weed Abatement program. The author obtaining information through the LRC at the National Fire Academy in Emmitsburg, Maryland, published books from the Santa Rosa Public Library, periodicals and journals relevant to the subject of funding and efficiencies were reviewed as were previous applied research projects relating to effective alternatives to the current program.

A descriptive methodology was utilized to answer the following questions: a) what laws and regulations govern a weed abatement program?, b) what models are available to fund and operate a weed abatement program?, c) what are the funding sources and operational practices utilized in other fire departments, and d) what alternative, self sustaining, funding and operational options are available to Fire Department's? This Applied Research Project (ARP) was formatted through the guidelines published in the American Psychological Association (APA) manual. 5th Ed.

A survey instrument was developed to gather specific information regarding alternative funding and program efficiencies. (See Appendixes A, B, C). The survey is found in Appendix A and B and was distributed by way of www.surveymonkey.com to private companies and public jurisdictions within the State of California. Appendix A is a letter sent with the survey stating the purpose of the survey with instructions for completion. The survey is found in Appendix B. This was sent to representatives of public agencies and private companies to obtain a wide variety of views and suggestions of alternative funding and weed abatement program efficiencies. Upon expiration of the survey return date, a total of 27 surveys were completed.

The questions contained in the survey were developed by the author based on the literature review. It was important to not limit the survey distribution to only similar sized cities as other ideas about funding and program efficiencies can be found in different sized agencies. This author felt it was important to clarify the number of parcels to determine the relationship between smaller jurisdictions and the funding options. Each question allows for an "other" response to allow ideas regarding funding and efficiencies

to be shared through the survey. The percent of funding question was relevant in identifying what level of funding the agencies were recovering.

This author assumed that the response agencies, where it was identified that a weed abatement program existed, were knowledgeable about funding options and program efficiencies and have experience with the operation of a program. It was also assumed that the survey would have an element of subjectivity from the participants based upon their position and knowledge of the program. The limitations identified included the number of survey agencies for this topic, as many agencies do not have a formal program, and the lack of objective validation of the questions and time available for the project. The results should be viewed with that in mind.

Results

The results of this applied research project were obtained from the literature review and survey. The results of the survey can be review in Appendix C.

Research has identified the following laws and regulations relating to weed abatement programs. At the federal level there were no laws relating to the need to abate weeds although the author noted laws in place to prevent damage to the environment.

The State of California is in a state of transition to more stringent laws and regulations governing defensible space, the thinning of vegetation surrounding a home. Laws are in place at the State level to address new construction and existing properties. These regulations include Chapter 7 of the California Building Code. Phase-I requirements went into effect on January 1, 2007 and require specific building

construction features for new homes located within designated fire zones. These features include covered rain gutters to prevent the accumulation of combustible debris on roofs, elimination of eave vents and Class-A non-combustible roof coverings to prevent the spread of fire through flying embers. Phase-II requirements went into effect January 1, 2008 and include requirements for product testing under fire conditions prior to listing and use of the materials. In addition, the Code requires that the contractor provide certification to the Building Official noticing compliance with the building and vegetation management requirements of the State of California.

The California Fire Code requires compliance with one of two regulations depending on whether the land is SRA or LRA. SRA lands are governed by the regulations of the Public Resource Code and require clearances of 100 feet from homes. Clearance is defined as the systematic thinning of vegetation based on the type and height of a plant or tree. LRA lands are governed by the California Government Code which requires the same 100 foot clearance from homes but is only applicable to homes located within a designated High Fire Severity Zone. Local agencies can further define those zones to include more properties.

On the local level, most straight weed abatement programs reside as a city ordinance under the authority of the California Government Code Section 39560. This section provides agencies the authority to classify weeds as a public nuisance and to abate the properties that do not voluntarily comply. The Code allows the reasonable cost of the services to be assessed to the property tax rolls.

A survey instrument was used to gather information related to the funding and operational models available for a weed abatement program. Twenty-eight agencies responded. One private agency respondent represented twenty-five public agencies.

Survey participants were asked whether they operated a weed abatement program within their jurisdiction. One-hundred percent of the participants operated a weed abatement program. One private contractor operates programs for twenty-five separate jurisdictions.

Participants were then asked if their program was operated by in-house personnel, a private contractor or a combination. Fifteen (60%) indicated they utilized in-house resources to operate their program, Two (8%) utilized a private contractor. Eight (32%) utilize in-house resources for a portion of the program and a private contractor for the remaining portions of the program such as physical abatement. Adjusting for the one private agency representing twenty-five jurisdictions, twenty-seven of forty-six agencies utilize a private contractor to operate their program.

As a follow-up question participants were asked whether their in-house personnel were sworn or non-sworn. Fifteen (62.5%) were non-sworn (civilian) while nine (37.5%) were sworn personnel.

Twenty-six jurisdictions provide abatement services for private properties while twenty-two (84.6%) also provide services to public properties.

Participants were asked to identify what percent their program fees were recovering of the program expenditures. Fourteen (54%) were recovering less than 50% of their program expenditures. Only six (23%) were recovering above 80% of their expenditures.

Participants were asked what type of funding model they utilize and the type of fees utilized. Nineteen (86%) billed for direct abatement costs, fifteen (68%) charge for overhead costs, seven (32%) utilize a parcel tax towards program funding. Two jurisdictions had received some federal funding for their program through grants.

Eight agencies (80% of those that answered the question) inspect up to 2,000 parcels. Two agencies (20%) inspected greater than a 2,000 parcels.

Participants were asked to provide any creative ideas for funding or operational efficiencies. Twelve responded. These ideas included; a) Fire Safe Community education programs to limit number of parcels in violation, b) Citations issues to non-compliant property owners, c) Community clean-up days to focus on abating parcels, c) Use of light-duty personnel, d) Use of goat program to assist homeowners and e) Privatization.

Research identified several funding mechanisms and operational efficiencies for analysis. Identified funding mechanisms included; a) Privatization, outsourcing of services to a private contractor, b) Fee recovery to include non-direct educational outreach costs, c) Use of light-duty, personnel off of main duty due to a minor injury, personnel and d) Grant funding.

Identified program efficiencies included; a) Implementation of a livestock abatement option, b) Increased community outreach with community clean-up days and c) Issuance of citations for repeat violator's.

Discussion

The author reviewed and analyzed the data accumulated from the literature review and survey instrument. The significant laws and regulations relating to weed abatement

are limited at the federal level to protection of the environment. This was surprising to the author in that a significant amount of federal resources are expended each year suppressing wildland fires. Kovacs referenced the four significant fires in California between 1990-1993. While not directly related to federal expenditures one can see the magnitude at the federal level when noting a loss of \$265 million to \$1.7 billion for each of these fires within California. (Kovacs, P. 2001.)

The author appreciated the fact that the federal government and more specifically the State of California made the finding that pre-fire education and preparation was a significant issue and has the potential to affect the loss of homes and lives during wildfires. (Wilson 1994) and (Power 2003.) This finding may result in federal funding at the local level.

The majority of regulations were found at the State and local level. California regulations have become more stringent following the 2003 and 2007 fires in San Diego County. While these regulations are helpful in preventing the spread of wildfires for new and existing structures, no funding mechanisms were provided for the education and enforcement of existing properties. Funding authorization is limited to the reasonable costs associated with the abatement, defined as any work necessary to achieve abatement. The author was not able to locate any State authorization for fee recovery for services relating to education and complaint inspections where the parcel is in compliance.

Local ordinances were located that include a provision for recovering costs associated with education and in the case of Ventura County, California, the fee was validated by the Grand Jury. (Ventura County Grand Jury, 2003)

Several funding models were noted. These included; a) Privatization or outsourcing of services, b) Parcel tax, c) Fee based billing and d) Grant funding. Each of these models can be blended to provide the required funding. A significant finding for this author was the percent recovery noted through the survey instrument. Fourteen (54%) were recovering less than 50% of their program expenditures. Only six (23%) were recovering above 80% of their expenditures.

This data suggest that it may be very difficult at best to achieve a 100% recovery of expenditures. The Santa Rosa program is currently recovering 50% of the program's expenditures. Utilizing the survey results, it appears that fourteen of the twenty jurisdictions that responded to that specific question are below a 50% recovery rate. Four agencies were able to achieve a 100% recovery level.

Privatization is a model that must not be discounted. Research indicated the restrictions on government fee recovery being limited to reasonable charges for service. Private agencies are not limited by that restriction. They are limited by the market rate for services since in most cases they are required to compete for the contract. One respondent serves twenty-five public agencies. While in some cases the fees were greater than public agency fees, the programs appear to be successful. Additional City specific research is required in this area.

Parcel taxes in California were a desirable option until the adoption of Proposition 182 by California voters in 1994. Proposition 182 requires that any tax be voted on by the electorate and a tax must receive 2/3's approval for passage. There are specific exceptions for some school taxes but as of yet there is no exemption for a fire tax. The

City of Oakland utilized a parcel tax following the Oakland Hills fire in 1991, prior to Proposition 182.

Fee based models were reviewed. The Ventura County Fire Department identified a fee for funding the education component of the weed abatement program and the fee was validated by the Ventura Grand Jury. (Ventura County Grand Jury, 2003.) This is a fee that requires additional research as the author noted that many times a Grand Jury's recommendations are not validated and implemented by local government. (City of San Marcos, California 1999.)

Federal grant funding is minimal at this time. The author found hope in additional funding becoming available as the Federal government realizes the savings potential of addressing mitigations of properties and fuels to prevent catastrophic fires. The Healthy Forest Act was adopted in 2003. (Power, T, 2003.)

Operational efficiencies were identified which require further review. The use of light-duty personnel, personnel re-assigned from their normal suppression assignment due to injury, may be a cost savings if the number of personnel is adequate to provide the services. Weed abatement services in California generally begin in April and continue through October.

The use of non-sworn, civilian, personnel can be a significant program savings. In California, sworn personnel retirement costs can be as high as 40% of salary while non-sworn personnel retirement costs may be in the neighborhood of 15%. The downside of this option is the limitation on the duties that can be assigned to a non-sworn position and the loss of flexibility for staffing emergency resources. The survey instrument noted that 62.5% of the respondents utilized non-sworn personnel for the weed abatement program.

In California, the modification of a sworn position to a non-sworn position would require a negotiation process with the Union and may require that the position modification take place through attrition. The State retirement system, CALPERS, prohibits a retirement benefit from being reduced for an existing employee.

The use of additional community outreach and public education to reduce the number on non-compliant parcels would certainly be successful. The additional research required for this suggestion relates to identifying a funding source for those efforts.

The author found important relevant data from the literature review and survey instrument which may be able to be utilized by the City of Santa Rosa and other fire department's to financially sustain a weed abatement program. Additional research is required that will be agency specific and may result in modifications to existing ordinances to comply with the State of California's Government Code fee recovery provisions.

The survey instrument was helpful. This author believes separating the public and private agencies out with separate focused questions may be of benefit when analyzing the results.

Recommendations

The City's Weed Abatement Program was not financially viable. The lack of an alternative funding mechanism would result in the program being eliminated. The unregulated growth of weeds on properties would create a greater risk for catastrophic fires within the City's Wildland Urban Interface

The author's research was based on identification of alternative funding and weed abatement program options to provide a recommendation for program changes resulting in a sustainable program.

The author has analyzed the different funding options and operational efficiencies identified through the literature research and survey instrument. While some of the options may meet the interests of the City of Santa Rosa, the author believes that the others should not be discounted by other researchers reviewing this data. Many of the options are jurisdiction specific based on many variables such as the ability to increase fees, the class of personnel utilized, labor agreements in place, the number of parcels in the program and the expected funding recovery of the jurisdiction.

One significant finding was that more than half of the agencies recovered less than 50% of program expenditures. This author believes the low recovery is related to the State Government Code limitations of reasonable charges for the specific service. While Santa Rosa is clearly in the mean average grouping at 50% recovery, the City's Council believes the program should be close to 100% fee recovery.

The author has weighed the political, labor and procedural challenges to implementation of these options and believes several are feasible options.

The author recommends that the City continue research in the area of modification of staffing from sworn to non-sworn. Savings may reach as high as \$20,000 per year based on reducing the retirement costs from a range of 40% to the range of 15-20%. Additional research may identify additional savings based on the limited duties that may be assigned to non-sworn personnel and the resulting salary level for those duties.

This option may be limited to implementation through attrition based on retirement system requirements for existing employees.

It is this author's opinion that privatization cannot be eliminated as an option. The private contractor respondent in the survey is servicing twenty-five jurisdictions, no significant problems or concerns were identified during this author's research. The City may be able to issue a request for proposals (RFP) to determine the interest from private companies.

The author believes it is important to review the option of adding a recovery fee, similar to the County of Ventura, for community outreach and public education services relating to the abatement of dangerous weeds. This fee may recover substantial funds towards improving the total program recovery percentage. It should be noted that Santa Rosa currently utilizes an hourly fee of \$105 per hour. This fee includes overhead and full salary and benefit costs. Some jurisdictions were not using "benefit loaded" hourly fees which would be a substantial improvement in recovery for jurisdictions. If the fee is added, additional outreach would be beneficial to reduce the number of non-compliant parcels and ultimately reduce the threat from wildfires.

The use of light duty personnel should be reviewed and implemented if the assigned resources for the weed abatement program can be re-assigned to a funded program. The saving may be substantial in that the City is already funding the light-duty position.

Grant funding should be aggressively pursued to supplement existing gaps in funding. Grant opportunities are expected to increase in the area of wildfire mitigation at the federal and state level.

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Appendix A

July 1, 2008

California Agencies

SUBJECT: Alternative Funding and Program Efficiencies for a Weed Abatement Program Survey

The Santa Rosa Fire Department is currently reviewing possible program reductions for the Department. The Weed Abatement program is on the reduction list as a result of fee revenue equaling less than 50% of the cost of the program.

I am requesting that you complete the survey and share any specific funding models and program efficiencies utilized for your program. I will also be utilizing the information for completion of an Applied Research Paper (ARP) on this topic. The ARP is a requirement for completion of each year of the Executive Fire Officer program at the National Fire Academy in Emmitsburg, Maryland. This report will be sent to each of you if you wish to be copied.

The collected information will be reviewed and analyzed towards a modification to our program with the objective of sustaining the program through the budget reduction process.

Thank you for your time and assistance in completing the linked survey through Survey Monkey. All individual survey results are confidential.

http://www.surveymonkey.com/s.aspx?sm=ISwqH4ybeB3gXovplOBO_2fA_3d_3d

Please contact me if you have any questions or concerns.

Mark McCormick
Deputy Chief
Santa Rosa Fire Department
955 Sonoma, Santa Rosa, CA. 95404
(707)543-3500

Appendix B

Weed Abatement Program Survey

1. Does your jurisdiction operate a Weed Abatement Program?
 - a) Yes
 - b) No
2. Please identify the model for operating your program.
 - a) In-house.
 - b) Private Contractor.
 - c) Combination.
 - d) Other.
3. Which type of properties does your program manage?
 - a) Private Properties.
 - b) Public Properties.
 - c) Other.
4. If you utilize in-house staff to manage the program, are they;
 - a) Civilian
 - b) Public Safety
 - c) Other.
5. What percent of your program is sustained by program fees?
 - a) 100%
 - b) 80-99%
 - c) 60-79%
 - d) 40-59%
 - e) Less
6. What type of fees do you utilize:
 - a) Charges for direct abatement.
 - b) Charges for overhead costs.
 - c) Parcel Tax.
 - d) Contractor direct charges.
 - e) Fees for inspection

f) Other.

7. Does your program receive any Federal or State reimbursements for the program?

- a) Yes
- b) No

8. What number of parcels does your agency inspect each year.

- a) 2000 or greater
- b) 1000 to 2000
- c) 500-1000
- d) 0-500

9. Please share any creative ideas for funding or operations of an effective Weed Abatement Program.

- a) _____

10. Please identify your jurisdiction.

- a) _____

Appendix C

Weed Abatement Program Survey Results

(Number of responses) (Percent utilizing choice)

- 1) Does your jurisdiction operate a Weed Abatement Program?
 - a. Yes (27) (100%)
 - b. No

- 2) Please identify the model for operating your program.
 - a. In-house. (15) (60%)
 - b. Private Contractor. (2) (8%)
 - c. Combination. (8) (32%)
 - d. Other

- 3) What type of properties does your program manage?
 - a. Private Properties. (26) (100%)
 - b. Public Properties. (22) (84.5%)
 - c. Other. (1) (Comment) Vacant parcels only.

- 4) If you utilize in-house staff to manage the program, are they;
 - a. Civilian (15) (62.5%)
 - b. Public Safety (9) (37.5%)
 - c. Other.

- 5) What percent of your program is sustained by program fees?
 - a. 100% (4) (15.4%)
 - b. 80-99% (2) (7.7%)
 - c. 60-79% (3) (11.5%)
 - d. 40-59% (3) (11.5%)
 - e. Less (14) (53.8%)

- 6) What type of fees do you utilize:
 - a. Charges for direct abatement. (19) (86.4%)
 - b. Charges for overhead costs. (15) (68.2%)
 - c. Parcel Tax. (7) (31.8%)
 - d. Contractor direct charges. (6) (27.3%)
 - e. Fees for inspection (3) (13.6%)

- f. Other.
- 7) Does your program receive any Federal or State reimbursements for the program?
 - a. Yes (2) (7.7%)
 - b. No (24) (92.3%)
- 8) What number of parcels does your agency inspect each year.
 - a. 2000 or greater (2) (20%)
 - b. 1000 to 2000 (0) (0%)
 - c. 500-1000 (4) (40%)
 - d. 0-500 (4) (40%)
- 9) Please share any creative ideas for funding or operations of an effective Weed Abatement Program.
 - a. Summarized:
 - a) Fire Safe Community education programs to limit number of parcels in violation.
 - b) Citations issues to non-compliant property owners.
 - c) Community clean-up days to focus on abating parcels.
 - d) Use of light-duty personnel
 - e) Use of goat program to assist homeowners
 - f) Privatization
- 10) Please identify your jurisdiction.

A total of 28 jurisdictions responded. 17 remained anonymous.

La Habra Heights F.D.
 Torrance F.D.
 Napa City F.D.
 El Dorado Hills F.D.
 Murietta F.D.
 Fire Prevention Inc. Weed Contractor
 Moreno Valley F.D.
 Porterville F.D.
 San Gabriel F.D.
 Rincon Valley F.D.
 San Marcos F.D.